

AS
converging the separated light ray using an f θ lens onto a workpiece, wherein the wavelength selector includes a prism disposed along a light axis of the laser light, a spatial filter having a focusing lens and a shield that passes only a light ray having a specified wavelength, and a pair of reflection mirrors, in which one reflection mirror of the pair of reflection mirrors, is disposed on either side of the prism, and wherein separation of the light ray having the specified wavelength out of the laser light is effected through transmitting the laser light a plurality of times through the prism using the pair of reflection mirrors.

REMARKS

Re-examination and allowance of the present application is respectfully requested.

The Examiner objects to claims 4 and 12 as being unclear (i.e., 35 U.S.C. §112, second paragraph rejection). Applicants thank the Examiner for bringing this issue to Applicants' attention. By the current amendment, Applicants have amended claims 4 and 12, paying particular attention to the concern raised by the Examiner. In view of the present amendment, Applicants submit that the ground for the 35 U.S.C. §112, second paragraph rejection no longer exists. Accordingly, Applicants respectfully requests withdrawal of this ground of objection.

Applicants thank the Examiner for indicating that claims 6 and 12 contain allowable subject matter, and that these claims would be allowable if amended to be placed into independent form. By the current amendment, Applicants amend claims 6

and 12 to place them in independent form, including substantially all the limitations of their respective base claim and any intervening claim. Accordingly, Applicants believe that claims 6 and 12 are now place in condition for allowance, and respectfully request such an indication from the Examiner.

In this regard, Applicants wish to clarify the record with respect to the basis for the patentability of claims 6 and 12. While Applicants do not disagree with the Examiner's indication that certain identified features are not disclosed by the references, as noted by the Examiner, Applicants wish to clarify that the claims in the present application recite a combination of features, and the basis for patentability of these claims is based on the totality of the features recited therein.

Applicants respectfully traverse the 35 U.S.C. §103 rejection of claims 1, 2 and 7-11 as being obvious over Applicants' "admitted prior art" of Fig. 7 in view of U.S. patent 5,914,978 to WELCH et al. (hereinafter WELCH), and the 35 U.S.C. §103 rejection of claims 4 and 5 as being obvious over Applicants' "admitted prior art" in view of WELCH and U.S. Patent 5,528,612 to SCHEPS et al. (hereinafter SCHEPS).

The Examiner acknowledges that Applicants' "admitted prior art" fails to disclose or suggest a wavelength selector. Applicants submit that both WELCH and SCHEPS fail to disclose or suggest Applicants' wavelength selector including a shield provided with a pin hole to pass only a light ray having a specified wavelength. Thus, Applicants submit that even if one attempted to combine the teachings in the various manners suggested by

the Examiner, one would fail to arrive at the instant invention, as defined by the amended claims, in which the wavelength selector includes a prism disposed along a light axis of the laser light, and a spatial filter that includes a focusing lens and a shield to pass only a light ray having a specified wavelength.

By the present amendment, Applicants amend the independent claims to more clearly specify the present invention; namely, that the wavelength selector includes a prism and a spatial filter, in which the prism is disposed along a light axis of the laser light, and the spatial filter includes a focusing lens and a shield that passes only a light ray having a specified wavelength. Applicants submit that the present invention, as defined by the amended claims, are allowable over the art of record, as at least the above discussed feature is lacking from the references applied by the Examiner, either singularly or in combination. Accordingly, the Examiner is respectfully requested to withdraw the various grounds of rejection, to indicate the allowability of the pending claims, and to pass this application to issue.

Applicants also cancel without prejudice, claims 2, 8 and change the dependency of claim 3. However, Applicants expressly reserve the right to submit similar type claims in another application.

SUMMARY AND CONCLUSION

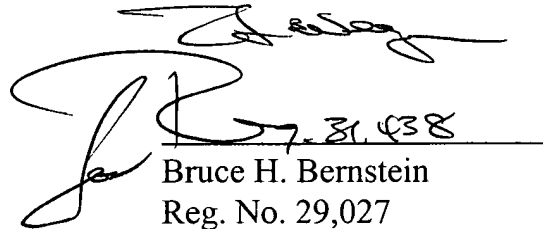
In view of the fact that none of the art of record, whether considered alone or in combination, discloses or suggests the present invention as now defined by the pending

claims, and in further view of the above amendments and remarks, reconsideration of the Examiner's action and allowance of the present application are respectfully requested and are believed to be appropriate.

Should the Commissioner determine that an extension of time is required in order to render this response timely and/or complete, a formal request for an extension of time, under 37 C.F.R. §1.136(a), is herewith made in an amount equal to the time period required to render this response timely and/or complete. The Commissioner is authorized to charge any required extension of time fee under 37 C.F.R. §1.17 to Deposit Account No. 19-0089.

If there should be any questions concerning this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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Enclosure:
APPENDIX A - MARKED-UP CLAIMS

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1 (Amended). A laser processing apparatus, comprising:
a laser oscillator [for emitting] that emits laser light;
an f θ lens positioned relative to the laser oscillator [for converging the] that converges
said emitted laser light onto a workpiece; and
a wavelength selector interposed between [the] said laser oscillator and [the] said f θ
lens [for separating] to separate a light ray having a specified wavelength out of [the] said
laser light, said wavelength selector including a prism disposed along a light axis of said laser
light, and a spatial filter including a focusing lens and a shield that passes only a light ray
having a specified wavelength.

3 (Amended). The laser processing apparatus according to Claim [2] 1, wherein the
laser light is transmitted through the prism a plurality of times.

4 (Amended). The laser processing apparatus according to Claim 3, wherein [the] said
wavelength selector includes a pair of reflection mirrors, in which one reflection mirror of
said pair of reflection mirrors, is positioned on either side of [the] said prism [, for causing
the] to cause said laser light to pass through [the] said prism more than once.

6 (Amended). A [The] laser processing apparatus [according to Claim 5] ,
comprising:

a laser oscillator that emits laser light;

an f θ lens positioned relative to the laser oscillator that converges said emitted laser light onto a workpiece; and

a wavelength selector interposed between said laser oscillator and said f θ lens to separate a light ray having a specified wavelength out of said laser light, said wavelength selector including a plurality of prisms disposed along a light axis of said laser light, and a spatial filter including a focusing lens and a shield that passes only a light ray having a specified wavelength, wherein [the] said plurality of prisms are disposed between a pair of opposed reflection mirrors.

7 (Amended). A [The] laser processing apparatus [according to claim 1] ,
comprising:

a laser oscillator that emits laser light;

an f θ lens positioned relative to said laser oscillator that converges said emitted laser light onto a workpiece; and

a wavelength selector interposed between said laser oscillator and said f θ lens to separate a light ray having a specified wavelength out of said laser light, wherein [the] said wavelength selector includes a diffraction grating disposed along a light axis of [the] said laser light, and a shield [for passing] that passes only a light ray having a specified wavelength.

9 (Amended). A laser processing apparatus, comprising:

a laser oscillator [for emitting] that emits laser light;

an $f\theta$ lens positioned relative to [the] said laser oscillator [for converging the] that converges said emitted laser light onto a workpiece;

a scanning member [for guiding the] that guides said laser light into [the] said $f\theta$ lens [for separating to separate a light ray having a specified wavelength from [the] said laser light, said wavelength selector including a prism disposed along a light axis of said laser light, and a spatial filter including a focusing lens and a shield that passes only a light ray having a specified wavelength.

11 (Amended). A laser processing method, comprising:

emitting laser light from a laser oscillator;

separating a light ray having a specified wavelength out of the laser light [by] using a wavelength selector including a prism disposed along a light axis of the laser light, and a spatial filter including a focusing lens and a shield that passes only a light ray having a specified wavelength; and

converging the separated light ray [using an $f\theta$ lens] onto a workpiece [for machining the workpiece] using an $f\theta$ lens.

12 (Amended). A [The] laser processing method [according to Claim 11] ,

comprising:

emitting laser light from a laser oscillator;

separating a light ray having a specified wavelength out of the laser light by a wavelength selector; and

converging the separated light ray using an $f\theta$ lens onto a workpiece, wherein the wavelength selector includes a prism disposed along a light axis of the laser light, a spatial filter having a focusing lens and a shield [for passing] that passes only a light ray having a specified wavelength, and a pair of reflection mirrors, in which one reflection mirror of the pair of reflection mirrors, is disposed on either side of the prism, and wherein separation of the light ray having the specified wavelength out of the laser light is effected through transmitting the laser light a plurality of times through the prism using the pair of reflection mirrors.